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मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 7879-1 (1975): Glossary of aeronautical and astronautical terms, Part 1: General [TED 14: Aircraft and Space Vehicles]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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*Indian Standard***GLOSSARY OF AERONAUTICAL
AND ASTRONAUTICAL TERMS****PART I GENERAL****0. Foreword**

0.1 Provides standard definitions of technical terms peculiar to aeronautics, astronautics and related subjects. Terms in general use in other branches of engineering are also included where they have some special relevance to aeronautics or astronautics.

0.2 This standard consists of a series of parts, each part covering terms specific to a particular feature, type of aircraft, equipment, service, etc.

0.3 The general arrangement of the terms is alphabetical. However, in certain cases related terms have been given together under a heading or general definition, and these are printed in distinctive italic type.

0.4 Each term has been assigned a 4-digit or 5-digit number. The first one (or two) digit, in the thousandth place, represents the part number. This part number with the following digit in the hundredth place represents the section. The last two digits represent the position of the definition within a section. Thus the term 3405 is the 5th definition of Section 34, which is in Part III.

0.5 Where two or more synonymous terms are in use, the term which is favoured is given first, with the intention that it should gradually displace the others. The alternative terms are given below the preferred terms in less prominent type.

0.6 An Indian Standard Glossary of space terms covering definitions pertaining to rockets, missiles, etc, is also under preparation.

0.7 Assistance has been derived from BS 185 'Aeronautical and astronautical terms' issued by the British Standards Institution, in the preparation of this series of Indian Standards.

1. Scope — This part covers the standard definitions for general aeronautical terms.

2. Terminology**SECTION 11 — GENERAL**

No.	Term	Definition
1101	Aeronautics	All activities relating to aerial locomotion (see 1109).
1102	Aerostation	The operation of lighter-than-air aircraft (see 1109).
1103	Aircraft Dinghy	An inflatable boat carried in an aircraft for use after alighting on water.
1104	Airworthy	Complying with the regulations prescribed by the competent authority certifying the fitness for flight of an aircraft.
1105	Altitude	The vertical distance above mean sea-level (see 1118).
1106	<i>Density Altitude</i> DENSITY HEIGHT	An atmospheric density expressed as the altitude which corresponds to that density in the international standard atmosphere.
1107	<i>Pressure Altitude</i>	An atmospheric pressure expressed as the altitude which corresponds to that pressure in the international standard atmosphere.
1108	Altitude Chamber	A chamber in which conditions of pressure, and sometimes temperature, at altitude can be simulated for test purposes.

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Gr 2

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No.	Term	Definition
1109	Aviation	a) The operation of heavier-than-air aircraft (see 1102). b) Synonym for ' aeronautics '.
1110	Avionics	The application of electronics to aeronautics and astronautics.
1111	Buoyancy	The vertical force on an aircraft, or other body, wholly or partly immersed in a fluid, equal to the weight of the fluid displaced.
1112	<i>Centre of Buoyancy</i>	The centre of gravity of the fluid displaced by an aircraft, or other body, wholly or partially immersed in a fluid.
1113	<i>Reserve Buoyancy</i>	Excess of the buoyancy of a seaplane, with its hull or floats completely immersed, over its weight.
1114	Elevation	a) The altitude of a point on the Earth's surface. b) The angle between the observer's horizontal plane and the oblique line from the observer to a given point above him. (Abbreviation for ' angle of elevation ').
1115	Flight Simulator	Equipment, in which certain flight conditions are simulated as far as possible, used for training aircrew to operate a given type of aircraft, or for investigating the flying characteristics of an aircraft.
1116	Gas Dynamics	The science of the flow of gases, especially when compressibility and ' real gas ' effects such as dissociation or noncontinuum behaviour are present.
1117	Ground, To	To prohibit an aircraft from flying.
1118	Height	The vertical distance above a specified datum (see 1105).
1119	Jettison	To throw overboard.
1120	Magnetofluidynamics MAGNETOHYDRODYNAMICS (MHD) MAGNETOGASDYNAMICS	The study of the flow of electrically conducting fluids (for example, ionized gases) in magnetic fields.
1121	Mechanics of Fluids	The science of the behaviour of fluids under the action of forces. Fluids include liquids and gases, and simple fluids may be characterized by continuing deformation under the action of shear stresses. Fluid Statics is a branch of this science dealing with fluids in equilibrium. The term Fluid Dynamics is used for the branch dealing with the flow of fluids under the action of forces. Classically, Hydrostatics and Hydrodynamics are referred to water. However, they are now used for incompressible fluids, generally liquids. Aerodynamics classically is referred to air, usually relative motion of air with a solid body. It is sometimes used to refer to compressible fluids, usually gases.
1122	Plasma	An electrically conductive state of a gas in which it is comprised of neutral particles, ionized particles and free electrons but, taken as a whole, is electrically neutral.
1123	Sortie	A flight by an aircraft for a specific purpose.
1124	Airborne Time	The period beginning at the time when the aircraft leaves the Earth's surface and ending when it again makes contact with the Earth's surface.
1125	Flight Time BLOCK TIME CHOCK-TO-CHOCK TIME BUOY-TO-BUOY TIME	The period beginning at the time when the aircraft starts to move under the control of the pilot and ending when it returns to rest at the end of the flight.
1126	Flying Time	The summation of the flight times.

No.	Term	Definition
1127	Ground Running-Time	The period of engine-running time while an aircraft is at rest and/or taxing

SECTION 12 — AIRCRAFT

The classification of the main types of aircraft defined in this standard is shown diagrammatically in Appendix A.

1201	Aeroplane	A power-driven heavier-than-air aircraft with supporting surfaces which remain fixed under given conditions of flight.
1202	<i>Amphibian</i>	An aircraft capable of operating from either a land or a water surface.
1203	<i>Boat Amphibian</i>	An amphibian of which the main body or hull is also the means of support on water.
1204	<i>Landplane</i>	An aeroplane capable of operating from a land surface.
1205	<i>Seaplane</i>	An aeroplane capable of operating from a water surface.
1206	<i>Float Seaplane</i>	A seaplane provided with floats as its means of support on water.
1207	<i>Flying Boat</i> BOAT SEAPLANE	A seaplane of which the main body or hull is also the means of support on water.
1208	Aircraft	A vehicle designed to travel through the air outside the ground effect region.
1209	Heavier-than-Air Aircraft AERODYNE	An aircraft which derives its lift chiefly from aerodynamic forces.
1210	Lighter-than-Air Aircraft AEROSTAT	An aircraft which is supported chiefly by its buoyancy in air.
1211	Airship	A power-driven lighter-than-air aircraft.
1212	<i>Non-rigid Airship</i>	An airship in which the internal pressure alone maintains the designed shape of the envelope.
1213	<i>Rigid Airship</i>	An airship having a rigid framework to maintain the designed shape of the envelope.
1214	<i>Semi-rigid Airship</i>	An airship having a rigid longitudinal member to distribute the load and to assist in maintaining the designed shape of the envelope.
1215	Balloon	A non-power-driven lighter-than-air aircraft.
1216	<i>Captive Balloon</i>	A balloon anchored or towed by a line.
1217	<i>Free Balloon</i>	A balloon floating freely in the air.
1218	Glider	A non-power-driven heavier-than-air aircraft.
1219	Kite	A non-power-driven heavier-than-air aircraft without controls, anchored or towed by a line.
1220	Ornithopter	A heavier-than-air aircraft supported in flight chiefly by the reaction of the air on wings to which a flapping motion is imparted.
1221	Rotorcraft	A heavier-than-air aircraft which derives lift from a rotor or rotors.
1222	<i>Cyclogyro</i> PADDLE-PLANE	A rotorcraft on which the rotor is similar in form to a paddle wheel, power-driven about a horizontal axis.
1223	<i>Gyroplane</i>	A rotorcraft with non-power-driven rotor(s) rotating about axes which are vertical, or nearly so, when the aircraft is in horizontal flight.
1224	<i>Helicopter</i>	A rotorcraft deriving lift from power-driven rotor(s) rotating about axes which are vertical, or nearly so, when the aircraft is in horizontal flight.

APPENDIX A

CLASSIFICATION OF MAIN TYPES OF AIRCRAFT

